

What is Claimed is:

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 G' } 1. An optical printer head comprising:
 2 a picture element array composed of picture elements
 3 containing light-emitting devices arranged in directions of a
 4 line and a string in two dimensions;
 5 a horizontal scanning circuit to feed data signals to each
 6 picture element string in said picture element array; and
 7 a vertical scanning circuit to sequentially select and
 8 activate each picture element line in said picture element array,
 9 wherein said picture element array, said horizontal
 10 scanning circuit and said vertical scanning circuit are formed
 11 in a same insulating substrate.

1 2. The optical printer head according to Claim 1,
 2 wherein said light-emitting device is composed of organic
 3 electroluminescence devices.

1 3. The optical printer head according to Claim 1,
 2 wherein said horizontal scanning circuit and said vertical
 3 scanning circuit are composed of poly-crystal silicon thin-film
 4 transistors.

1 4. The optical printer head according to Claim 1,
 2 further comprising a means for setting amounts of light to be
 3 emitted from said light-emitting device in picture elements
 4 constituting said picture element lines by each picture element
 5 line constituting said picture element array.

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1 5. The optical printer head according to Claim 1,
2 wherein said vertical scanning circuit is so operated that, in
3 a state in which said picture element array is disposed facing
4 a surface of a photosensitive body in a manner that a direction
5 of said picture element line is parallel to a rotation axis of
6 said photosensitive body, activates said picture element line
7 containing each picture element while each picture element
8 contained in each picture element string in said picture element
9 array is passing sequentially on a same spot on a surface of said
10 photosensitive body, with rotation of said photosensitive body.

1 6. The optical printer head according to Claim 4,
2 wherein said vertical scanning circuit is so operated that, in
3 a state in which said picture element array is disposed facing
4 a surface of a photosensitive body in a manner that a direction
5 of said picture element line is parallel to a rotation axis of
6 said photosensitive body, activates said picture element line
7 containing each picture element while each picture element
8 contained in each picture element string in said picture element
9 array is passing sequentially on a same spot on a surface of said
10 photosensitive body, with rotation of said photosensitive body.

1 7. The optical printer head according to Claim 5,
2 wherein the number of picture elements in said each picture
3 element string activated by said vertical scanning circuit is able
4 to be changed.

1 8. The optical printer head according to Claim 6,
2 wherein the number of picture elements in said each picture

3 element string activated by said vertical scanning circuit is able
4 to be changed.

1 9. The optical printer head according to Claim 5,
2 wherein said picture elements constituting said picture element
3 array are divided into a plurality of groups of picture elements
4 in directions of a same line and of a same string and wherein,
5 while the number of picture elements constituting said group of
6 picture elements to be activated by said vertical scanning circuit
7 is being changed, activation of said picture elements is performed
8 for every group of said picture element of said same line.

1 10. The optical printer head according to Claim 6,
2 wherein said picture elements constituting said picture element
3 array are divided into a plurality of groups of picture elements
4 in directions of a same line and of a same string and wherein,
5 while the number of picture elements constituting said group of
6 picture elements to be activated by said vertical scanning circuit
7 is being changed, activation of said picture elements is performed
8 for every group of said picture element of said same line.

1 11. The optical printer head according to Claim 7,
2 wherein said picture elements constituting said picture element
3 array are divided into a plurality of groups of picture elements
4 in directions of a same line and of a same string and wherein,
5 while the number of picture elements constituting said group of
6 picture elements to be activated by said vertical scanning circuit
7 is being changed, activation of said picture elements is performed
8 for every group of said picture element of said same line.

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1 12. The optical printer head according to Claim 8,
2 wherein said picture elements constituting said picture element
3 array are divided into a plurality of groups of picture elements
4 in directions of a same line and of a same string and wherein,
5 while the number of picture elements constituting said group of
6 picture elements to be activated by said vertical scanning circuit
7 is being changed, activation of said picture elements is performed
8 for every group of said picture element of said same line.

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1 ^{Sub}_{Q2} 13. The optical printer head according to Claim 5,
2 further comprising a detecting sensor for detecting positional
3 deviation of insertion in a direction vertical to a direction of
4 travelling of an object to which a toner image is transferred from
5 said photosensitive body and a shift register for shifting data
6 signals in said horizontal scanning circuit to correct the
7 detected positional deviation.

1 14. The optical printer head according to Claim 6,
2 further comprising a detecting sensor for detecting positional
3 deviation of insertion in a direction vertical to a direction of
4 travelling of an object to which a toner image is transferred from
5 said photosensitive body and a shift register for shifting data
6 signals in said horizontal scanning circuit to correct the
7 detected positional deviation.

^{add}_{Q3}